



The Role of Heritability in the Development of Psychopathy

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Abstract

In order to understand the etiology of psychopathy, it is important to understand the role of heritability in its development. Evidence of the genetic basis can improve our knowledge about origin of psychopathic traits that are resistant to most conventional treatments. In addition, these findings open up a few questions of the evolutionary role of psychopathy.

Keywords: Psychopathy; Heritability; Evolutionary

Introduction

Psychopathy is a complex construct which encompasses different affective, behavioral and cognitive features often connected to maladaptive and antisocial tendencies. All relevant conceptualizations and operationalizations of psychopathy emphasize that key psychopathic traits are lack of empathy, emotional coldness, manipulative, grandiosity, aggression (reactive and proactive), low impulsive control, parasitic lifestyle [1-3]. One of the most prominent characteristics of psychopathy is resistance to treatments, especially in adult individuals. The reasons for this resistance are largely due to the heritability of this disorder. Psychopathy is usually considered one of the 'dark traits' of personality. However, studies showed that some psychopathy traits such as low anxiety, manipulative skills and boldness has adaptive potential and can help individuals in survival [4].

Heritability of psychopathy

In the past twenty years, first studies that provide evidence of the genetic basis of psychopathy have been conducted. The first known heritability study of psychopathic features was performed on sample 3687 a couple of twins at age 7 [5] showed that there is a high heritability (67%) of antisocial behavior accompanied by callous-unemotional traits that are considered developmental predictors of psychopathy [6]. These traits are stable and include lack of guilt and empathy, shallow affect, impulsivity, aggression and deficits in verbal intelligence. The results of the study [7] showed that genetic factors were the significant effect on the affective-interpersonal factor of psychopathy (heritability in boys was 64%, and girls 49%), as well as on the impulse-antisocial factor (heritability in boys was 46% and in girls 58%). Molecular-

genetic studies also confirm the existence of the genetic basis of psychopathy [8,9]. A positive relationship between genetic risk and psychopathy traits measured by FFM conceptualization of psychopathy was found in the study conducted by Beaver et al. [10]. Furthermore, genetic factors were explained between .37 and .44 of the variances in measures of psychopathy. Earlier studies which used different measures of psychopathy also showed an important role of genetic factors in etiology of psychopathy [11,12].

Conclusion

In the light of the above considerations, the question arises whether psychopathy is an adaptation which provides an evolutionary advantage or the constellation of maladaptive tendencies which realize through social inadequacy behaviour? Given the strong resistance to the treatment of psychopathic individuals and high heritability psychopathic traits, it may be that psychopathy which includes instrumental (i.e., predatory) violence, emotional callousness and boldness provide a genetic advantage in surviving.

Conflict of Interest: The author declares that there is no conflict of interest.

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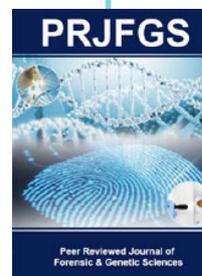
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